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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,531	11/28/2003	Akira Hamamatsu	520.43302X00	7610

20457 7590 09/16/2005

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EXAMINER

STAFIRA, MICHAEL PATRICK

ART UNIT PAPER NUMBER

2877

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/722,531	Applicant(s) HAMAMATSU ET AL. <span style="float: right;">(RM)</span>	
	Examiner Michael P. Stafira	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-9, 11 and 13 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 14 is/are rejected.
- 7) ☒ Claim(s) 3-6, 10, 12 and 15-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/28/2003</u> | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

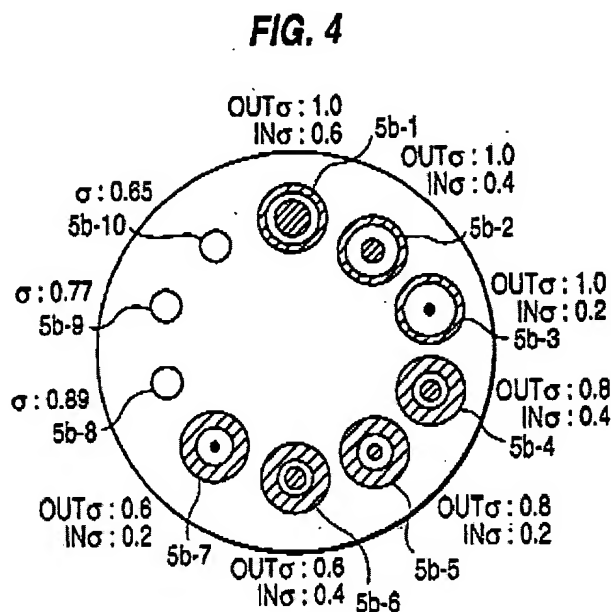
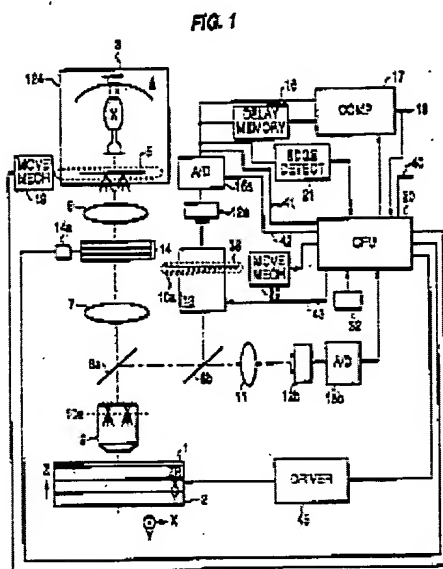
3. Claims 1-2, 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda et al. ('498).

### **Claim 1**

Maeda et al. ('498) discloses an illumination optical system (Fig. 1, Ref. 3) which illuminates light to an object under inspection (Fig. 1, Ref. 1); a detection optical system (Fig. 1, Ref. 12a) which detects light reflected from said object and converts the detected light into an image signal (Fig. 1, Ref. 15a); a spatial filter (Fig. 1, Ref. 38) which is provided in said detection optical system to selectively shield diffracted light pattern coming from a circuit pattern existing on the object by combining light-shielding points of minute dots state (Col. 8, lines 12-33); an arithmetic processing system (Fig. 1, Ref. 20) which processes the image signal

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detected by said detection optical system (Fig. 1, Ref. 12a); and a monitor (Fig. 23, Ref. 27a) which observes foreign matters/defects based on a signal processed by said arithmetic processing system.

**Claim 2**

Maeda et al. ('498) discloses a stage which mounts said object under inspection and moves said object in a three-dimensional direction (Fig. 1, Ref. 2).

**Claim 14**

Maeda et al. ('498) discloses illuminating light (Fig. 1, Ref. 3) on an object under inspection (Fig. 1, Ref. 1); detecting light reflected (Fig. 1, Ref. 12a) from said object (Fig. 1, Ref. 1) and converting the detected light into an image signal by a detection optical system (Col. 7, lines 30-50); selectively shielding (Fig. 1, Ref. 10a) diffracted light coming from a circuit pattern existed on the object in the detection optical system (Col. 8, lines 12-33); arithmetically processing (Fig. 1, Ref. 20) the image signal detected by said detection optical system; and

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observing foreign matters/defects based on a signal derived from said arithmetic processing by a monitor (Fig. 23, Ref. 27a).

***Allowable Subject Matter***

4. Claims 7-9, 11, 13 are allowed over the prior art of record.
5. Claims 3-6, 10, 12, 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter:

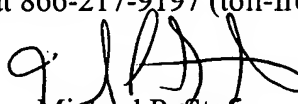
Regarding claim 7, the prior art fails to disclose or make obvious an inspection apparatus having a detection optical system comprises a Fourier transform lens which Fourier transforms diffracted light coming from said circuit pattern of said object, and an inverse Fourier transform lens which inverse Fourier transforms light coming through said spatial filter, and in combination with the other recited limitations of claim 7. Claims 8-9, 11, 13 are allowed by the virtue of dependency on the allowed claim 7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael P. Stafira  
Primary Examiner  
Art Unit 2877

September 14, 2005